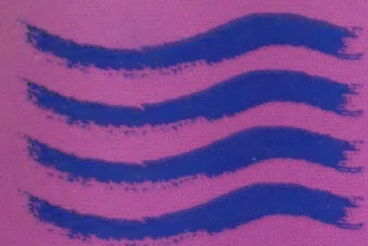


**Report on Fourth Wave**



# HIV RISK BEHAVIOUR SURVEILLANCE SURVEY IN TAMIL NADU



APAC project is administered by Voluntary Health Services, Chennai with financial assistance from United States Agency for International Development under bilateral agreement with the Government of India.



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## CONTENTS

## Page No

ABBREVIATIONS	2
FOREWORD	3
EXECUTIVE SUMMARY	5
BACKGROUND	10
METHODOLOGY & IMPLEMENTATION	12
RESPONDENT PROFILE	19
Age Group	20
Marital Status	21
Education	22
Occupation	23
TRENDS IN BSS INDICATORS	25
COMPARATIVE TRENDS OF BSS ACROSS COUNTRIES	24
FUTURE INTERVENTIONS IN THE STATE	38
SUMMARY	43



# ABBREVIATIONS

USAID	☞	United States Agency for International Development
VHS	☞	Voluntary Health Services
APAC	☞	AIDS Prevention And Control Project
STD	☞	Sexually Transmitted Diseases
HIV	☞	Human Immuno-deficiency Virus
AIDS	☞	Acquired Immuno-deficiency Syndrome
CSW	☞	Commercial Sex Worker
TH	☞	Truckers and Helpers
MFW	☞	Male Factory Workers
FFW	☞	Female Factory Workers
MSTD	☞	Male STD Patients



## FOREWORD

The increasing HIV/AIDS prevalence in Tamil Nadu prompted the health programme managers to launch an intensive prevention intervention programme in the state. In the absence of a potent vaccine to combat the spread of HIV, behaviour change is the only way by which the spread of HIV could be contained.

APAC has supported thematic intervention projects reaching the trucking community, women in prostitution, people living in slums and visiting places of tourists interest since 1997.

APAC's efforts to reduce the sexual transmission of HIV is measured every year using the behaviour surveillance survey(BSS). APAC has successfully conducted four waves of BSS. The results have been encouraging.

We are very happy to share the results of the fourth wave of BSS with others. I congratulate APAC and AC Nielsen, the research organisation, for the successful completion of the survey. I express my appreciation for the continued expertise provided by Stephen Mills, Associate Director - Technical, FHI for the survey. I also thank other experts, Dr. P. Krishnamurthy, Joint Director - Training, Public Health and Preventive Medicine, Mrs. Rekha Masilamani, Country Representative - Path Finders, New Delhi, Mr. S. Ramasundaram, I.A.S, Joint Secretary - Commerce, Government of India, New Delhi, who supported APAC in preparing the monograph.

I congratulate Dr. Bimal Charles, Project Director, APAC, and Dr. Lakshmi Bai, Programme Associate, APAC, for providing Technical support to the organisation and for documenting the findings. I am sure this monograph is going to be a valuable document for the people working in the field of HIV/AIDS prevention in Tamil Nadu and other parts of the world.

**Dr. N.S. MURALI**  
Hon. Secretary  
Voluntary Health Services  
Chennai.





# EXECUTIVE SUMMARY

## TAMIL NADU HIV RISK BEHAVIOUR SURVEILLANCE SURVEY - WAVE 4

### Introduction

AIDS Prevention And Control Project (APAC) administered by Voluntary Health Services (VHS), Chennai, funded by United States Agency for International Development (USAID) conducts Behaviour Surveillance Survey (BSS) every year. APAC had conducted BSS in 1996, 1997, and 1998, and the fourth wave was conducted during February - April 2000 on similar lines as the earlier waves. BSS observes trends in behavioural change in different sub-population groups which are targeted for prevention of STD/HIV/AIDS activities in Tamil Nadu.

This report summarises the methodology and findings of the Tamil Nadu HIV risk Behaviour Surveillance Survey (BSS)-fourth wave. This study was executed by A C Nielsen Research Services Private Limited, Chennai.

### Objective

The main objective of the BSS is to obtain trends on high-risk behaviour among selected population groups. BSS obtained measures on nine indicators and also additional information to explain the base indicators. The BSS indicators used are the following:

#### Knowledge Indicators

- Proportion of respondents who cite two acceptable ways of preventing sexually transmitted diseases (STDs).
- Proportion of respondents who know that condoms prevent STD.



- Proportion of respondents who cite two acceptable ways of prevention of HIV/AIDS.
- Proportion of respondents who know that condoms prevent HIV/AIDS.

### **Behaviour Indicators**

- Proportion of respondents who reported hetero-sexual intercourse with a non-regular partner in the last year.
- Proportion of respondents who reported condom use during their last sexual intercourse with a non-regular partner in the last year.

### **Urethritis Prevalence and Health Seeking Indicators**

- Proportion of male respondents who reported symptoms of urethritis during last year.
- Proportion of male respondents who sought treatment from qualified medical practitioners for urethritis in the last year.

### **Appropriate Perception of Risk Indicators**

- Proportion of respondents with risk behaviour who perceived that they are at risk of contracting HIV/AIDS.

## **Methods**

The methodology adopted for the fourth wave of BSS was similar to that of the earlier waves. The survey was conducted in nine sample towns. The total sample size covered among different sub-population groups was 5200. The sub-population groups studied are female commercial sex workers, truckers and helpers, male patients attending STD clinics along with male and female industrial workers. However BSS being a quantitative survey the need for qualitative information was found important to explain the trends. Therefore, after the completion of quantitative



analysis, focus group discussions were conducted with few important groups viz. truckers and helpers, female commercial sex workers and female factory workers.

The sample sizes for respective population groups for interviews were pre-determined based on the expected values of the two key study indicators, viz.; proportion of respondents involved in non-regular sexual behaviour, and respondents who used condoms during last non-regular sex. These estimates were made in order to calculate the sample size so that 10% change in behaviour could be detected in future waves. Sample size was computed based on the formula for estimation of difference in two proportions. Standardised questionnaires were used for data collection. The most vital component of the survey was training of the field staff and standardisation of the questionnaire. Strict quality control measures were adopted by use of accompanied calls by the senior research and field executives of A C Nielsen and staff of APAC.

## **Results**

### **Socio-Demographic Characteristics**

The mean age of female commercial sex worker was 29.7 years and that of the truckers and helpers 27 years, whereas the mean age of male and female factory workers was 27.5 years and 25.2 years respectively. By selection criteria, the age of factory workers was restricted to 18-35 years. Except for CSWs the majority of the sub-population groups are unmarried. The literacy rate among CSWs is poor (24.8%). Proportion of illiterates in other population groups was - truckers and helpers - 6.6%, male factory workers - 23% and female factory workers - 13%. Among truckers and helpers, 63.5% were truckers and the rest helpers. Nearly half the male (49.6%) and female industrial workers (48.2%) were involved in unskilled occupation. It is also



observed that 69% of the sex workers were full time in their profession. Other 31% of the sex workers consist of vegetable-flower vendors, housemaids, construction and agricultural workers etc. The Socio-demographic characteristics of the sub-population groups studied in the fourth wave were comparable to the earlier wave conducted in 1998.

## Trends in Behaviour Change

It is interesting to note that the proportion of truckers who had sexual intercourse with non-regular partners is on the decline. The trend is from 48% to 35% and 32% to 21% (Figure-1) respectively in the last four years. Though proportion of male factory workers who reported involvement in the non-

Figure 1  
Sexual intercourse with non-regular partner

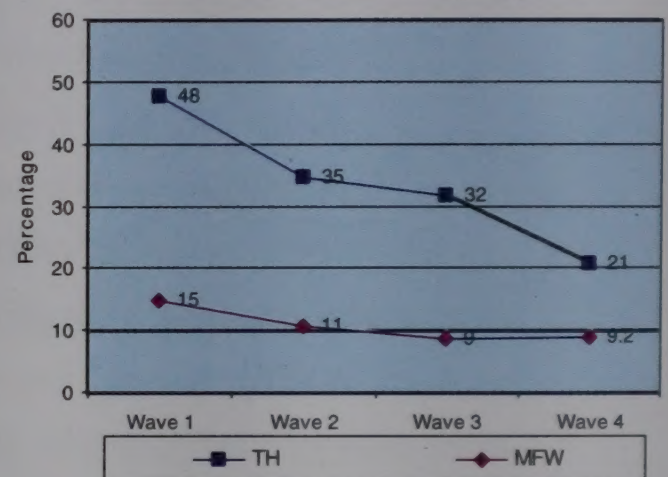
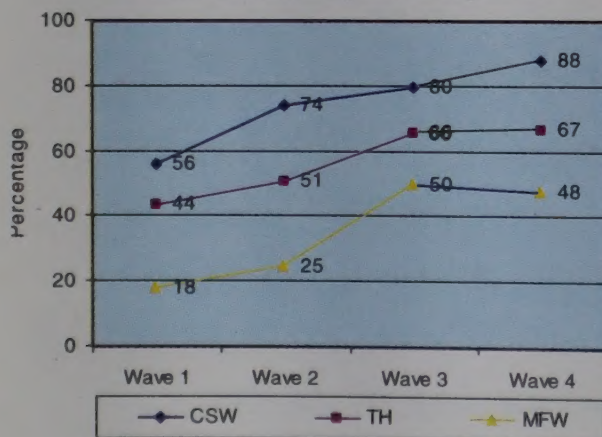


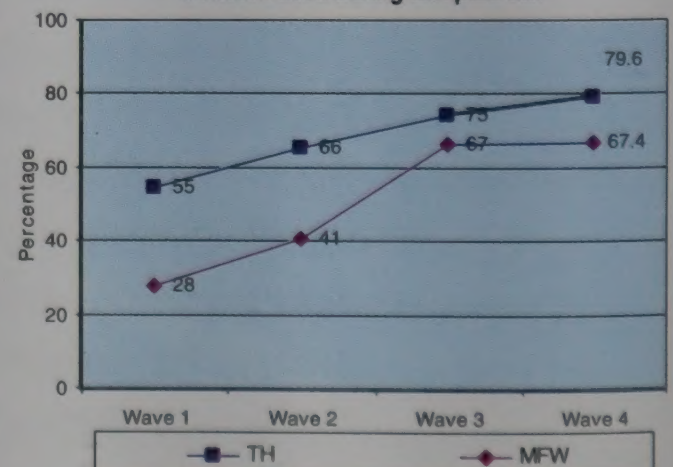
Figure 2  
Condom used during last non-regular sex



regular sex were decreasing in the first three waves, it did not change further in the fourth wave. Proportion of commercial sex workers using condoms have steadily increased from 56% to 74% and 80% to 88%. (Figure 2). Condom usage among truckers in non-regular sex continues to remain more or less at the same level - 66% to 67%. However, there is a declining trend in the condom usage by male factory workers in non-regular sex from 50% to 48%.

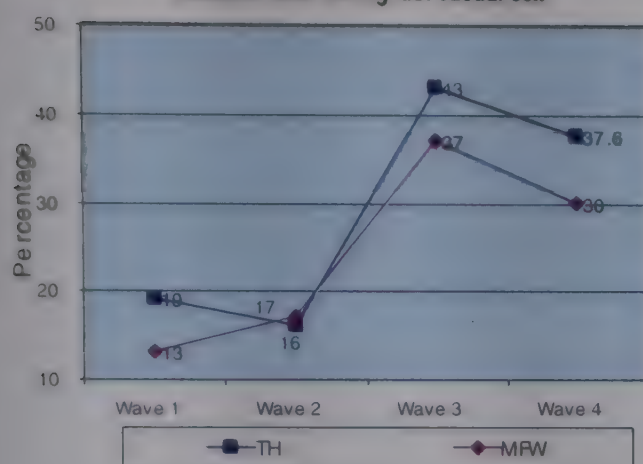
Condom usage by truckers and

Figure 3  
Condom used during last paid sex





**Figure 4**  
Condom used during last casual sex



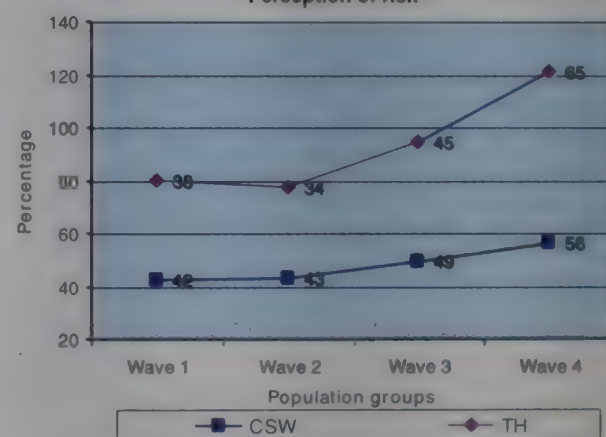
helpers in paid sex has increased from 55% to 66% and 75% to 79.6% and among male factory workers it continues to remain at the same level - 67% to 67.4% (Figure 3).

However condom usage in casual sex has decreased since the last wave in both truckers and male factory workers. Among truckers it has decreased from 43% to 37.6% and among male factory workers 37% to 30%. (Figure 4)

## Trends in Perception of Risk of Contracting HIV/AIDS

The respondents who did not use condom in their last non-regular sex were asked whether they perceived the risk of contracting the HIV/AIDS. It is observed that the proportion of respondents perceiving risk has gradually increased among CSWs over the past four years and the same has significantly increased among truckers in the last twelve months.

**Figure 5**  
Perception of risk



## Main Findings

### Knowledge

- The knowledge level of all the groups continues to remain high except among the population group of female factory workers.

### Sexual Behaviour

- Sexual intercourse with a non-regular partner has decreased significantly among the group of TH.



- Sexual intercourse with a paid partner has decreased among the group of TH.

### **Condom usage**

- Condom usage with the clients has increased among the group of CSW.
- Condom usage with non-regular sex partner continues to remain at the same level among the group of TH.
- Condom usage with paid partner has increased among the group of TH.

### **Risk perception**

- Among the respondents who are involved in unsafe sex their perception of risk of contracting HIV/AIDS has increased among the group of CSW and TH.

## **BACKGROUND**

The AIDS Prevention And Control (APAC) project is implementing HIV/AIDS prevention activities since 1995. This project is administered by the Voluntary Health Services (VHS), Chennai and funded by United States Agency for International Development (USAID). The main focus of the APAC project is to introduce and reinforce safe sexual behaviour in those who are at risk of contracting the HIV/AIDS infection. To attain this objective, APAC addresses various population groups with high-risk behaviour focussing on changing the behaviour and encouraging safe sexual practices. The various target specific interventions implemented by APAC supported NGO partners are

- STD/HIV/AIDS Prevention Along the Highways (PATH)
- STD/HIV/AIDS Prevention among Women in Prostitution (WIP)



- STD/HIV/AIDS Prevention among Tourist and Women in Prostitution (TWIP)
- STD/HIV/AIDS Prevention among Urban Backward Settlement (UBS)
- MCH/STD Integrated Service Intervention (MCH/STD)
- Clinic Intervention (CLIP)

APAC Supports NGO partners technically and financially. Behaviour Sentinel Surveillance is a monitoring and evaluation tool, which is adopted by APAC to monitor the impact of the intervention programme systematically. Behavioural change is for now and will perhaps for the future, be the only way to prevent spreading of HIV. Monitoring HIV/AIDS epidemic is one of the important components for combating the spread of HIV/AIDS infection. The common methods adopted world wide for monitoring the HIV/AIDS epidemic are serological surveillance for HIV infection, HIV sentinel surveillance, prevalence and incidence of STDs as surrogate measure etc. But the data generated from the above stated surveys do not reflect on the behavioural change, which has occurred with the effect of interventions. In the absence of permanent cure, prevalence data of HIV will never demonstrate the success of intervention efforts to prevent AIDS. HIV Risk Behaviour Sentinel Surveillance (BSS) is positioned as evaluation tool, which provides measures as indicators to observe trends in behavioural change.

APAC has successfully conducted three waves of BSS consecutively from the year 1996. This report contains the findings of the fourth wave of BSS conducted in similar lines of the previous waves. The survey captures trends in behavioural change among various sub-population groups in the State. The survey helps one to understand if the intervention efforts are on the right tract and help the programme implementers strengthen and modify the present efforts.



## METHODOLOGY

APAC commissions BSS annually. The methodology, which was adopted in the fourth wave, was similar and uniform to the earlier waves as BSS is essentially a surveillance exercise. Data were collected from the same population group with the same tool and at the same sample towns as in the earlier waves. A vigorous methodology was adopted in the baseline wave itself so as to ensure that there will be no change in the future waves.

Various quality control measures were adopted by APAC to ensure the quality in data collection. 10% of the fieldwork was supervised through accompanied calls. Training the field investigators formed the vital component of the survey. The training focussed on desensitisation exercises, communication and interviewing skills, code of conduct for BSS, ethics in the fieldwork and standardisation of the questionnaire. The training was for involvement both in-house and field mock calls.

### Primary Objectives

The data provided by the fourth wave, as in the case of earlier waves, served to measure the following indicators:

- Knowledge
- Behaviour
- Urethritis prevalence and health seeking behaviour
- Appropriate perception of risk

### Secondary Objectives

Quantitative data were also obtained with regard to the following explanatory variables, which helped to explain the base indicators:



- Sources of awareness about HIV/AIDS
- Population sub-groups, which involved in paid sex
- Type of non-regular partners
- Misconception about prevention and transmission of HIV/AIDS
- Condom use with different kind of non-regular partner
- Last STD problem faced
- Reasons for risk perception

It was found pertinent by APAC to obtain qualitative information to explain the trends in behavioural change among various population groups and also to understand the reasons for decrease in knowledge among female factory workers. To achieve this, focus group discussions were conducted with the following groups.

- Truckers and Helpers
- Commercial sex workers and
- Female factory workers

The population groups selected for the survey range from varied degrees of risk such as commercial sex workers who are at high risk, truckers and helpers who are at risk because of their occupational hazard and male and female factory workers hypothesised to be at moderate risk. Male STD patients were added on to the group but with a different objective. The data on male STD patients were collected to support intervention programme of APAC with STD patients. The definition of the population groups studied is presented below:



**Table 1: Population group studied in the BSS**

Sub - Population group	Definitions
Female commercial sex workers (CSWs)	Women engaged in sex for full time or part-time as a means of living during the past three months.
Male patients with sexually transmitted diseases (MSTD)	Male patients receiving governmental and private STD treatment facilities.
Truckers and helpers (TH)	Men driving trucks or assisting drivers along transport routes.
Male factory workers (MFWs)	Men aged 18 to 35 years, working for the past three months in factories, which employ 10 or more persons in a work place. The unit should have been functioning for more than 12 months.
Female factory workers (FFWs)	Women aged 18 to 35 years, working for the past three months in factories, which employ 10 or more persons in a work place. The unit should have been functioning for more than 12 months

## Sampling Universe and Sampling Frame

BSS being a surveillance exercise, the sample towns for the survey remained the same as in earlier waves. The sample towns were selected from the 48-priority towns in which APAC conducts interventions among various target population groups towards HIV/AIDS intervention. 9 sample towns were selected adopting systematic methodology for conducting the survey.

The sample size for individual population groups was pre-determined, so also the number of sites and interventions per site. The sample size was calculated based on the values of the two key study indicators. They are respondents who had sex with non-regular partners and among them those who had used condoms in



the last sexual intercourse. Then the sample size was calculated to detect a behavioural change of 10% in the future waves and it was spread across the sample towns using population proportion to size method.

Sampling exercise was done in the baseline wave and it was repeated in the following waves for a few groups like CSWs and MSTD. Similarly in the present wave the sampling exercise was repeated for CSWs and MSTD. Then systematic random sampling was adopted to select the interview sites. Cluster sampling methodology was adopted within each site and cluster of required size was built from a starting point, which was at random.

The details of the sample size spread across the sample towns in the fourth wave of BSS are presented below:

**Table 2: Population groups spread across the sample towns**

Centre	CSW	TH	MFW	FFW	MSTD	Total
Chennai	180	400	900	700	200	2380
Vellore	x	75	x	x	60	135
Madurai	100	150	300	300	100	950
Dindigul	x	75	75	150	60	360
Palani	60	x	x	x	x	60
Coimbatore	x	x	450	300	x	750
Salem	60	100	x	x	60	220
Erode	x	x	75	150	60	285
Nagercoil	x	x	x	x	60	60
Total	400	800	1800	1600	600	5200



## **Training of Interviewers, Data Collection and Quality Control**

The training of the field investigators was the vital component in the implementation of the survey. The training was conducted on similar lines as in the earlier waves. Overall, 44 field investigators and 11 supervisors of A C Nielsen were trained. The field and research executives of A C Nielsen participated in the training programme. The main components of the training programme were method of approaching the respondents, rapport building, ethics involved in collection of the data related to the sexual behaviour, desensitisation exercises on sex and sexuality, dress codes at the time of interview, communication skills and basic orientation on STD/HIV/AIDS. Two complete sessions were conducted for developing skills of interviewers in administering the questionnaires effectively. Both in-house and on field training through mock calls were imparted to the investigators.

Data collection, which started simultaneously in all the towns by the respective teams, was completed in four weeks. The entire activity of data collection was strictly monitored by researchers and field controllers of A C Nielsen as well as by the staff of APAC, who have accomplished 10 percent of the total fieldwork to ensure the high quality data. Care was taken to conduct the research within internationally accepted ethical standard recommended on the Helsinki declaration. The respondents were informed about the purpose of the study and also that the study was not intended to benefit the respondents as individuals but would benefit the community at large. Informal consent was taken from the individual respondents before administering the questionnaire. Total confidentiality was assured to the respondents and care was taken to maintain this.



After completion of the data collection, coding and data entry were carried-out simultaneously. The data entry was done using FOX PRO package and analysis by SPSS package.

## **Qualitative Data**

Qualitative data collection was done through focus group discussions with commercial sex workers, truckers and helpers and female factory workers. The main objective of eliciting qualitative data was:

### **Truckers & Helpers**

- To understand the attitude of truckers & helpers who have changed their sexual behaviour
- To identify whether the truckers & helpers who have changed their sexual behaviour adopt any other alternative behaviour or not
- To understand the reasons for reduction in non regular sexual practice among truckers and helpers

### **Commercial Sex Workers**

- To understand the reasons for increase in condom usage among commercial sex workers
- To understand the safe sexual practices adopted by commercial sex workers
- To understand the reasons for increase in risk perception among commercial sex workers
- To understand the profile of the clients of sex workers and reasons for having sex

### **Female Factory Workers**

- To understand the reasons for decline in the knowledge level on prevention of STD/HIV/AIDS and usage of condom as a protection against the disease among female factory workers



- To identify the channels of communication of female factory workers
- To identify the non-regular sexual practises prevalent among female factory workers

Focus group discussion guides were used to facilitate data collection and they were organised and conducted by experts from APAC and researchers from A C Nielsen.

The data generated helped to explain (1) the trends in changes in behaviour of high-risk groups and (2) reasons for the decline in the knowledge of female factory workers.



Table 3: Respondent Profile in the Four Waves of BSS

CHARACTERISTICS	CSW				TH				MFW				FFW			
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 1	Wave 2	Wave 3	Wave 4	Wave 1	Wave 2	Wave 3	Wave 4	Wave 1	Wave 2	Wave 3	Wave 4
	400	400	406	403	689	864	863	833	1386	1963	1956	1804	1873	1691	1720	1607
AGE - Percentage population																
Upto 17 years	0.3	1.0	0.7	0.4	0.2	0.5	0	0.0	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
18-20 years	4.8	5.3	3.7	4.2	14.2	13.1	14.9	15.1	10.6	14.5	11.8	12.7	42.4	41.3	38.4	33.5
21-25 years	17.0	18.3	14.0	11.4	31.2	28.4	24.8	29.8	27.1	29.4	27.1	26.5	24.0	24.0	19.4	21.7
26-30 years	30.8	35.8	26.4	38.2	24.1	25.0	29.1	25.5	30.2	27.9	27.5	26.8	18.3	19.3	18.7	21.4
31-35 years	23.3	29.5	22.7	41.2	17.6	17.8	21.0	24.7	32.2	28.2	33.8	32.7	15.3	15.4	23.4	23.4
36-40 years	17.8	9.8	21.9	4.2	8.0	7.9	5.7	3.4	Nil	Nil	Nil	1.1	Nil	Nil	Nil	Nil
41-50 years	5.5	0.5	10.6	0.2	3.9	6.7	4.4	1.6	Nil	Nil	Nil	—	Nil	Nil	Nil	Nil
51 + years	0.8	0	0	0.0	0.9	0.7	0.1	0.0	Nil	Nil	Nil	—	Nil	Nil	Nil	Nil
Mean age	31.2	29.3	32.1	30.0	27.7	28.3	27.9	27.0	27.4	26.8	27.4	27.2	23.7	23.8	24.7	25.2
MARITAL STATUS - Percentage population																
Unmarried, single	4.5	4.8	3.7	7.4	50.4	47.3	42.8	51.0	48.2	53.3	48	45.4	54.2	52.8	44.8	44.5
Unmarried, living with someone	17.8	20.8	15.8	4.7	1.3	1.3	0.2	0.6	0.2	0.7	0.2	0.4	0.1	0.5	1.3	0.1
Married, living with wife/husband	33.3	33.8	28.1	46.9	48.2	50.3	54.0	46.6	51.2	45.8	51.3	52.8	37.4	40.7	45.2	46.9
Divorced	0.8	1.8	3.0	3.7	0	0.1	0.8	0.2	0.1	0	0	0.8	0.9	0.5	0.9	2.7
Married, not living with wife/husband	33.8	26.0	32	35.0	0	0.3	1.0	0.7	0.2	0.2	0.2	0.8	3.6	2.4	2.6	0.9
Widowed	10.0	13.0	17.5	2.3	0.2	0.8	1.5	0.8	0.1	0.2	0.2	0.3	3.9	3.2	5.2	4.9
EDUCATION LEVEL - Percentage population																
Illiterate	38.3	47.5	40.4	24.8	5.4	8.0	3.9	6.6	1.2	1.5	1.1	2.3	11.2	5.1	4.4	13.0
Literate but no formal schooling	6.5	5.8	8.4	7.4	3.6	4.1	3.9	7.2	0.5	0.6	0.6	2.8	2.8	5.3	2.5	3.3
Upto Class V	23.5	14.8	17.7	26.8	16.6	13.1	13.3	16.8	6.8	5.5	5.0	8.2	16.0	14.3	16.9	21.1
Class VI to SSC/HSC/SSLC/PUC/Inter/Matriculation	31.1	31.1	31.8	38.9	72.7	72.6	75.4	67.5	72.6	72.6	73.3	66.7	67.6	71.0	73.9	61.2
Diploma	0	0	1.0	0.2	0.6	1.4	1.6	0.6	14.1	14.7	13.9	15.1	1.6	3.5	1.6	1.2
Graduation	0.8	1.0	0.2	1.2	1.0	0.8	1.6	1.3	4.3	4.6	3.9	4.6	0.9	0.9	0.8	0.3
PG/Professional and above	0	0.3	0.5	Nil	0.2	0.1	0.1	0.0	0.6	0.6	1.1	—	Nil	Nil	Nil	Nil
OCCUPATION - Percentage population																
Truck drivers/Owner-drivers					61.5	60.8	65.0	63.5								
Truck helpers/cleaners					38.5	39.2	35.0	36.5								
Skilled factory workers									72.7	84.1	77.2	81.6	62.3	63.9	53.7	51.8
Unskilled factory workers									27.3	15.9	22.8	18.4	37.7	36.1	46.3	48.2



## RESULT

The BSS is designed to obtain behavioural measurements over time among sub population groups, which are targeted, for intervention. Therefore, BSS is not a general population survey. Further the study had been designed to measure the indicators by population sub-groups and not by towns. Hence the background characteristics of the respondents in the repeated waves of BSS are not expected to change drastically. The Socio-demographic characteristics of the sub-population groups in the fourth wave were comparable with those of the earlier waves. The following section highlights the profile of the respondents in the fourth wave.

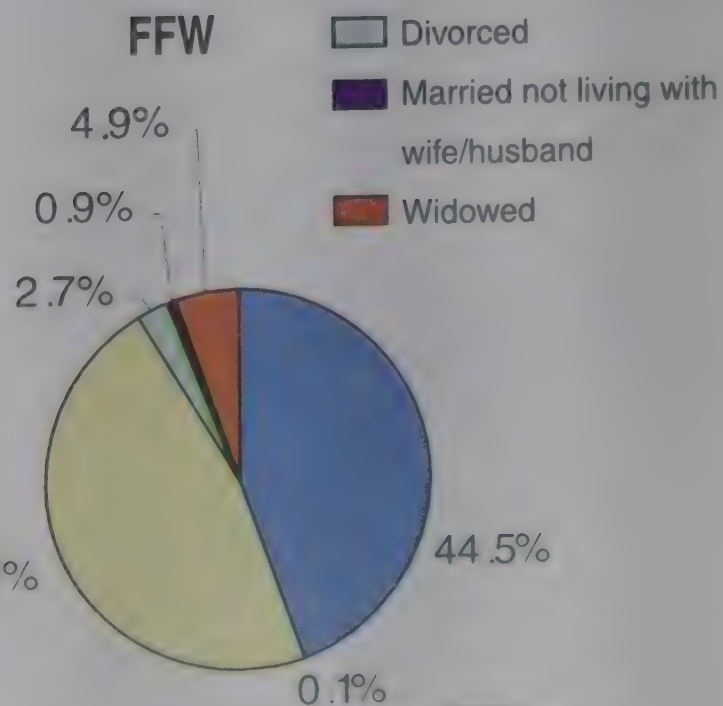
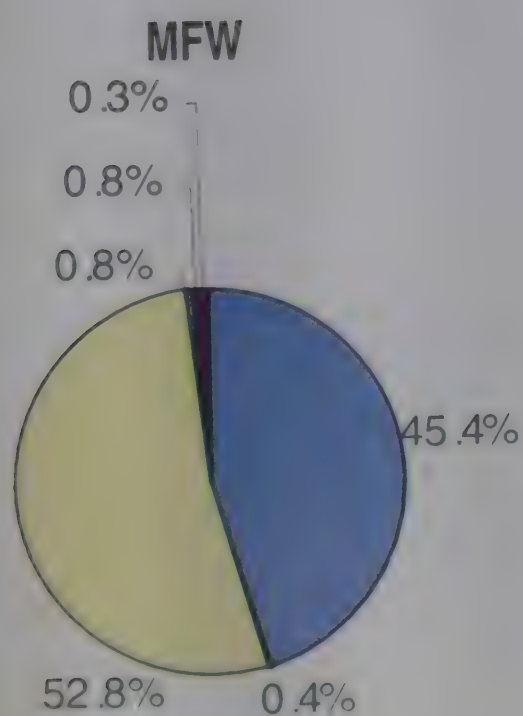
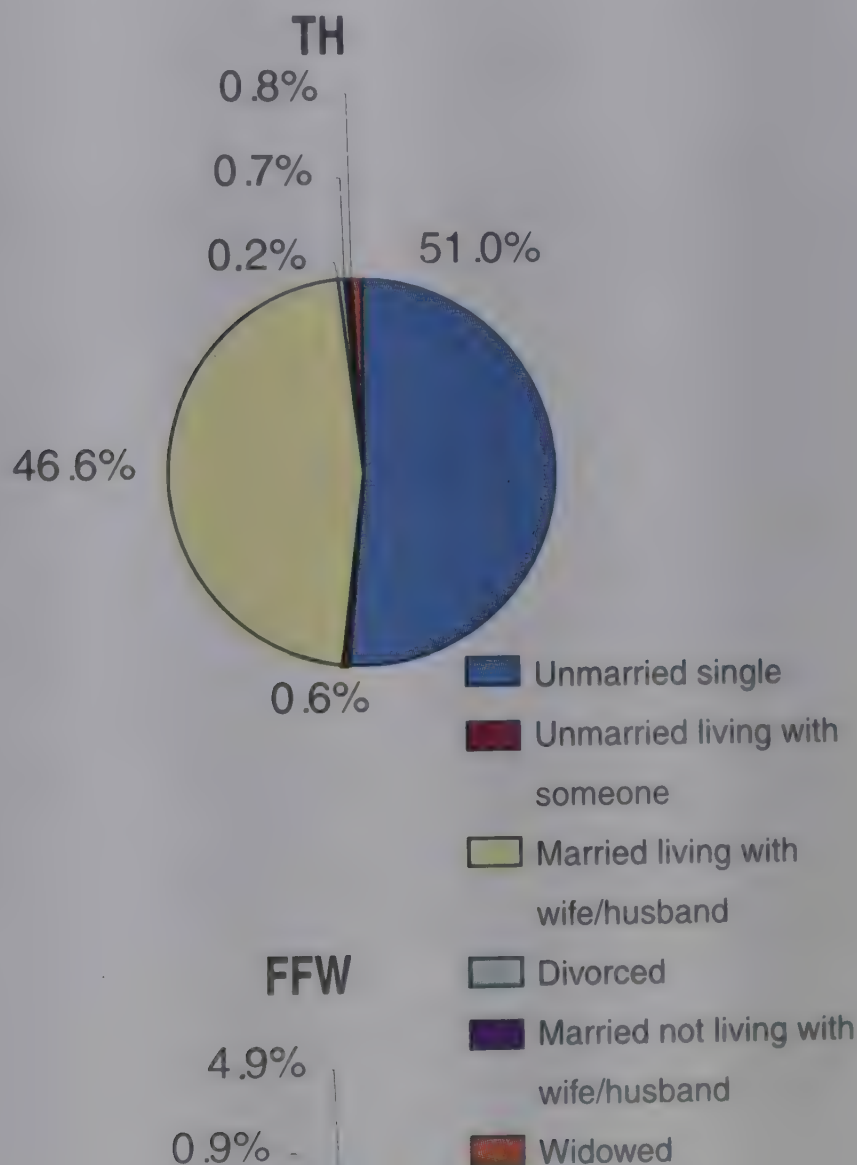
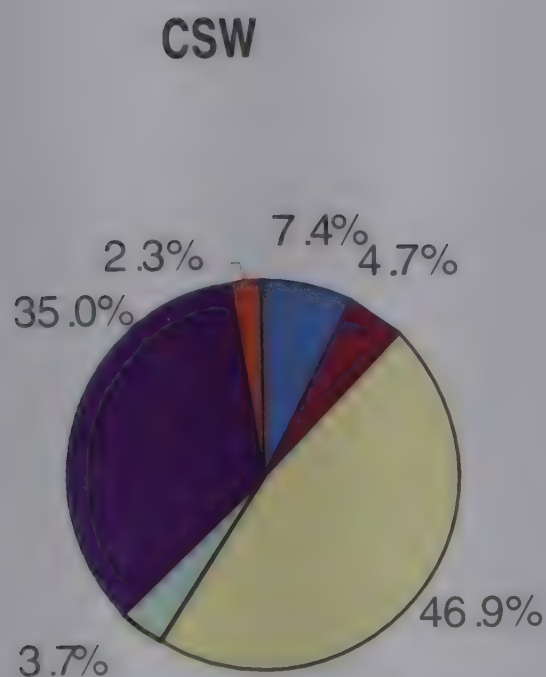
### Age Group

In the fourth wave the commercial sex workers had the mean age of 29.7 years and truckers & helpers 27 years. The mean age of male and female factory workers was 27.5 and 25.2 years respectively. By selection criteria the age group of factory workers was restricted to 18 to 35 years. (Table 3)



## Marital Status

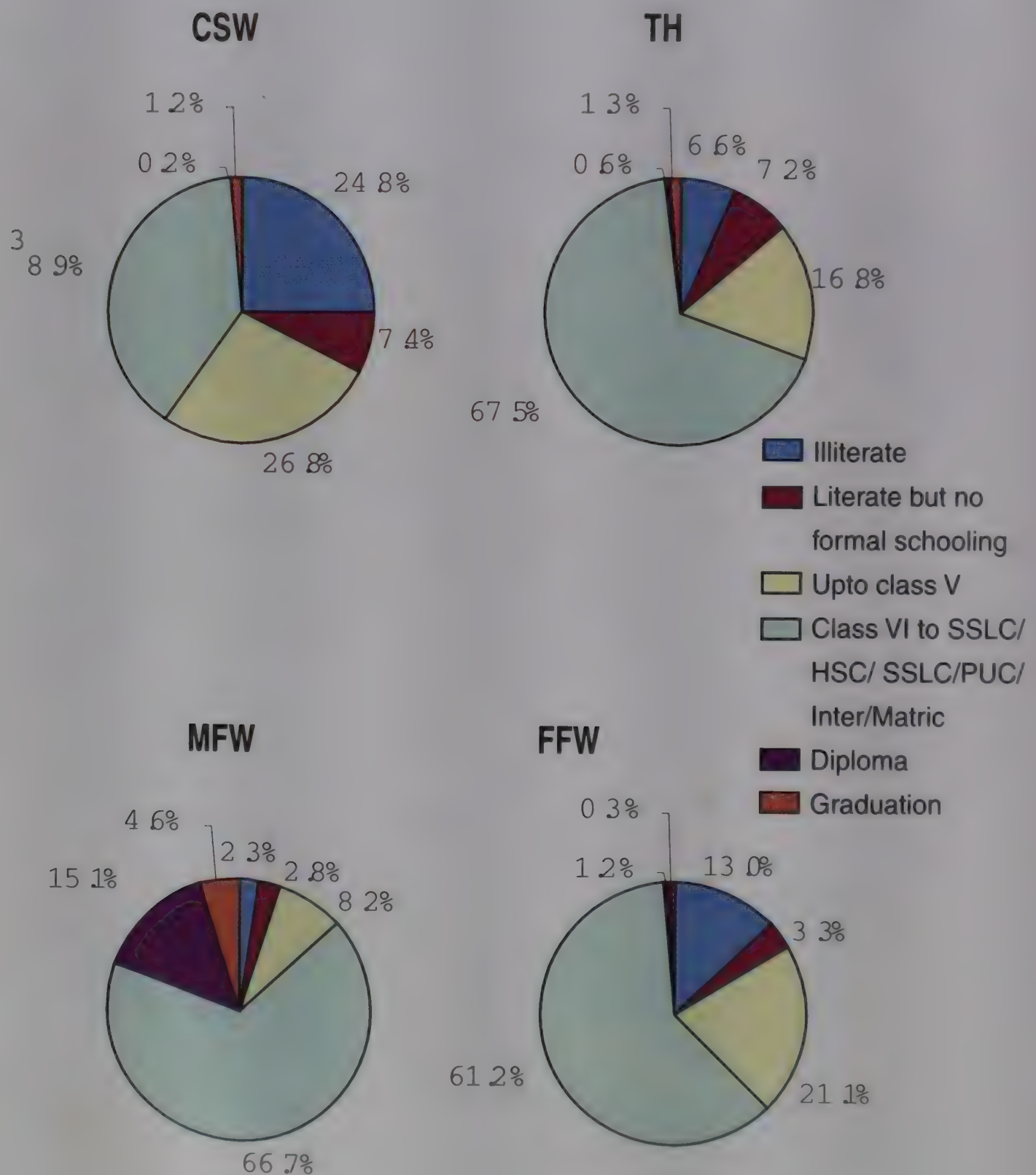
Except for CSWs the majority of the sub-population groups are unmarried, accounting 51% amongst truckers and helpers and 45.5% and 44.5% respectively amongst male and female factory workers.





## Education

The level of illiteracy among commercial sex workers was (24.8%). In the other groups it was 6.6% (truckers and helpers), 2.7% for (male factory workers) and 13% for (female factory workers).



## Occupation

In the fourth wave 63.5% of truckers and 36.5% of helpers constituted the population groups under report. Among factory workers 49.6% of male factory workers and 48.2% of female factory workers respectively are employed in unskilled occupation.

68.9% of the commercial sex workers are engaged in full time sex trade, this being only 47% in the third wave.

	BSS 1	BSS 2	BSS 3	BSS 4
No other Occupation	60.3	45.0	46.8	68.9
Vegetables/fruits/flower sellers	8.0	9.5	12.1	10.4
Construction workers	5.5	11.8	10.3	0.0
Agricultural labour/coolies	4.8	7.3	8.4	1.7
Housemaids	7.3	15.3	7.1	7.5
Petty trade/business	6.3	4.8	3.4	0.7
Film Industry	1.3	1.0	3.2	5.2
NGOs/Community workers	2.3	0.8	1.7	0.0
Factory/office/shop workers	4.5	1.0	1.5	0.3
Tailors	0.0	3.8	5.4	1.2

**Table 4: Other Occupation of CSWs**

The percentage of full time sex workers in the fourth wave has recorded a sharp increase to 68.9% from 46.8% of the third wave. The part-time sex workers are from among vegetable/fruit/flower vendors, housemaids and construction workers.



# TRENDS IN BSS INDICATORS

The trend in change in knowledge and behaviour of the specific population groups was obtained by comparing the data of four waves of Behaviour Surveillance Survey. The nine indicators of the BSS were as mentioned in Table 5.

**Table 5: Indicators measured**

## 1. Knowledge Indicators

- Proportion of respondents who cite two acceptable ways of preventing sexually transmitted diseases (STDs)
- Proportion of respondent who know that condoms prevent STD
- Proportion of respondents who cite two acceptable ways of prevention HIV/AIDS.
- Proportion of respondents who know that condoms prevent HIV/AIDS

## 2. Behaviour Indicators

- Proportion of respondents who report hetero-sexual intercourse with a non-regular partner in the last year
- Proportion of respondents who report condom use during their last sexual intercourse with a non-regular partner in the last year

## 3. Urethritis Prevalence and Health Seeking Indicators

- Proportion of male respondents who report symptoms of Urethritis during last year
- Proportion of male respondents who seek treatment from qualified medical practitioners for Urethritis in the last year

## 4. Risk Perception

- Proportion of respondents with risk behaviour who perceive that they are at risk of contracting HIV/AIDS

## BSS Indicators at a glance

BSS INDICATORS	CSW				TH				MFW				FFW			
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 1	Wave 2	Wave 3	Wave 4	Wave 1	Wave 2	Wave 3	Wave 4	Wave 1	Wave 2	Wave 3	Wave 4
<b>SAMPLE SIZE</b>	400	400	406	403	689	864	863	833	1386	1963	1956	1804	1873	1691	1720	1607
<b>1 At least two acceptable ways of preventing STD</b>																
Base-All respondents	338	387	393	391	631	821	826	801	1232	1818	1867	1698	946	1209	793	756
Percentage	400	400	406	403	689	864	863	833	1386	1963	1956	1804	1873	1691	1720	1607
	85	97	96.8	97.0	92	95	95.7	96.2	89	93	95.4	94.12	51	71	46.1	47.0
<b>2 Condoms prevent STD</b>																
Base-All respondents	347	383	397	395	579	771	827	802	1137	1696	1800	1643	623	801	479	470
Percentage	400	400	406	403	689	864	863	833	1386	1963	1956	1804	1873	1691	1720	1607
	86	96	97.8	98.0	84	89	95.8	96.3	82	86	92	91.10	33	47	27.8	29.2
<b>3 Aware of two acceptable ways of preventing HIV/AIDS</b>																
Base-All respondents	344	390	403	395	655	838	829	804	1290	1920	1915	1783	1523	1583	1533	1458
Percentage	400	400	406	403	689	864	863	833	1386	1963	1956	1804	1873	1691	1720	1607
	86	98	99	98.0	95	97	96.1	96.5	93	98	97.9	98.80	81	94	89.1	90.7
<b>4 Condoms prevent HIV/AIDS</b>																
Base-All respondents	355	387	392	387	531	744	784	798	1124	1740	1830	1715	1045	1065	876	826
Percentage	400	400	406	403	689	864	863	833	1386	1963	1956	1804	1873	1691	1720	1607
	89	97	96.6	96.0	77	86	90.8	95.8	81	89	93.6	95.10	56	63	50.9	51.4
<b>5 Sexual intercourse with non-regular partner last year</b>																
Base-All respondents	400	400	406	403	329	299	273	175	211	213	177	166	51	23	19	24
Percentage	400	400	406	403	689	864	863	833	1386	1963	1956	1804	1873	1691	1720	1607
	100	100	100	100	48	35	31.6	21.0	15	11	9	9.2	3	1	1.1	1.5
<b>6 Condom use during last non-regular sexual intercourse</b>																
Base-Respondents reporting non-regular sex in the last 12 months	225	295	325	355	144	151	180	117	38	53	89	80	10	3	5	7
Percentage	400	400	406	403	329	299	273	175	211	213	177	166	51	23	19	24
	56	74	80	88.1	44	51	65.8	65.8	18	25	50.3	48.2	20	13	26.3	29.2
<b>6a Condom use during last paid sexual intercourse</b>																
Base-Respondents reporting paid sex in the last 12 months	144	154	161	109	27	32	62	58								
Percentage	262	233	215	137	97	79	92	86								
	55	66	75	79.6	28	41	67	67.4								
<b>6b Condom use during last non-regular sex with a casual partner</b>																
Base-Respondents reporting last non-regular sex with a casual partner	21	14	32	35	20	25	36	33								
Percentage	113	90	74	93	159	151	98	110								
	19	16	43	37.6	13	17	37	30								
<b>7 Symptoms of urethritis in last 12 months</b>																
Base-All respondents	61	71	98	76	31	24	59	54								
Percentage	689	864	863	833	1386	1963	1956	1804								
	9	8	11.4	9.1	2	1	3	3								
<b>8 Last treatment from qualified allopathic doctor/clinic</b>																
Base-Respondents reporting symptoms of urethritis in the last 12 months	39	56	78	68	18	20	37	28								
Percentage	61	71	98	76	31	24	59	54								
	64	79	80	89.5	58	83	63	51.9								
<b>9 Risk perceived (high/slight chances of contracting HIV/AIDS)</b>																
Base-Respondents reporting no condom use during last non-regular sex	73	45	35	27	70	51	42	38	47	29	30	22	25	15	8	10
Percentage	175	105	71	48	185	148	93	58	175	160	88	86	41	20	14	17
	42	43	49.3	56.2	38	34	45.2	65.4	27	18	34.1	25.6	61	75	57.1	58.8



In addition to the data on indicators, data were also measured for other variables, which helped explain the base indicators. The focus group discussions conducted after the survey helped obtain qualitative data to explain the change in the trends of various population groups. The findings across the four waves of BSS are presented in Table 6.

## Knowledge Indicators

The knowledge level of the respondents with regard to the prevention of STD and AIDS and also the usage of condom as protection for both the diseases were measured. To measure these indicators, each respondent was provided with a set of options and asked whether the option provided can prevent the disease or not. Two sets of options were given separately for STD and AIDS. If the respondent was able to respond positively atleast for two acceptable ways of preventing the disease, he or she was considered having the knowledge. The set of options also contained misconceptions about the prevention of the disease and usage of condom as a protective device for the disease. The set of misconceptions were: not wearing clothes of an infected person, taking preventive injections/medicines, cleaning sex organs with dettol/disinfectant, avoiding public toilets. The knowledge on condom was the measure for the indicator 2 and 4 and the misconceptions were analysed separately.

### Prevention of STD - Indicator 1

The knowledge level of all the population groups on two acceptable ways of preventing STD remains high. However among female factory workers it continues to remain low from the third wave - 46 percent in wave III and 47 percent in wave IV. Group discussions with female factory workers also revealed that their knowledge level on STD is very low. Female factory workers stated that they did not have exposure to any intervention

activities on STD. Female factory workers who knew about STD stated that they came to know about it through their friends. The genital symptom, which they are aware of, is the vaginal discharge. They attribute various reasons for getting white discharge. It is basically because of the heat in the body as they work in an environment where lot of heat is generated. Home remedies are the first step in management for vaginal discharge. Only if it becomes unmanageable, they seek the help of health care providers. They are unaware of STDs except AIDS. Female factory workers showed lot of interest to know more about sexual hygiene and sexually transmitted diseases.

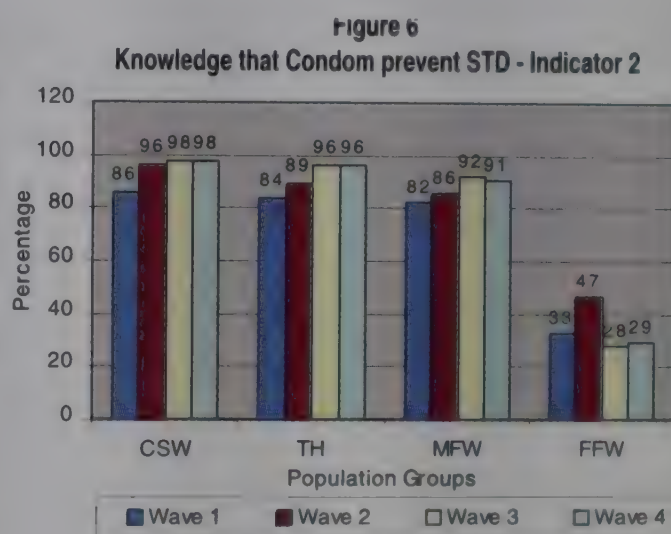
## Condoms prevent STD - Indicator 2

The knowledge levels on condom as protection for STD continues to remain high among all population groups. Among female factory workers knowledge continues to remain low in all the four waves.

In the focus group discussions it was observed that, female factory workers in the younger age group did not even know what a condom is. They stated that they were only aware of the brand Nirodh, which is displayed in television, trains and buses for family planning and disease prevention.

## Prevention of AIDS - Indicator 3

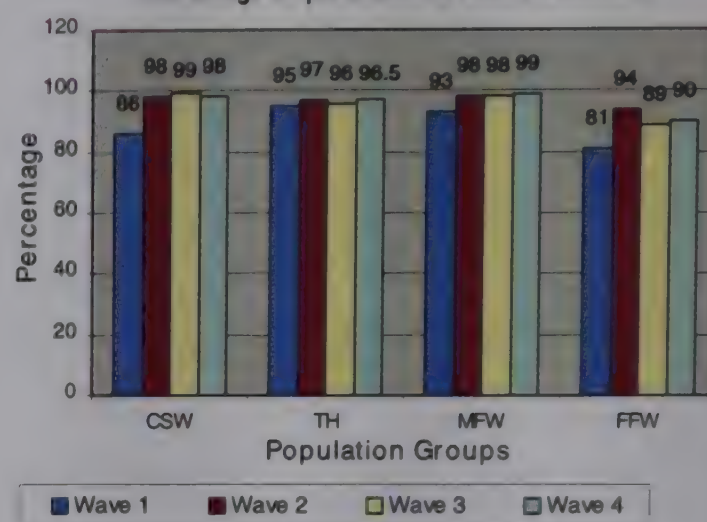
The knowledge levels of prevention of AIDS continue to remain high among all population groups right from the first wave and they are compared to be better than those of STD among all the population groups. Focus group discussions with the FFW also





revealed the same. In the third wave of BSS the knowledge of prevention of AIDS among FFWs was observed declining. These knowledge levels were observed remaining at the same level in wave IV.

**Figure 7**  
Knowledge on prevention of AIDS - Indicator 3

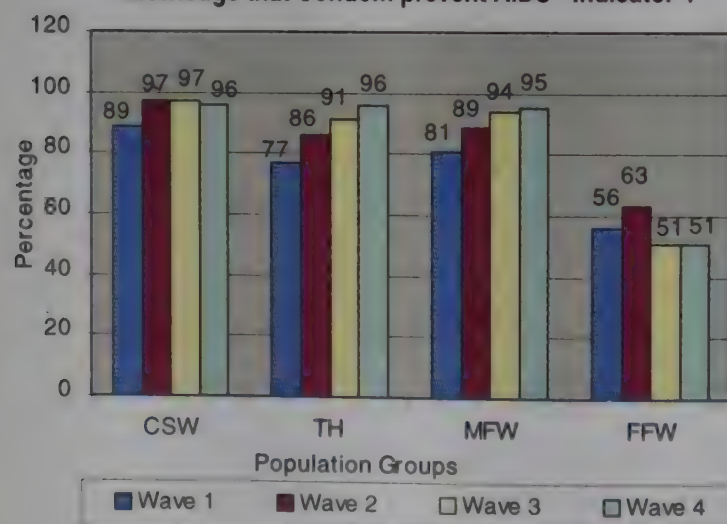


### Condoms prevent AIDS - Indicator 4

The knowledge levels that condoms prevent HIV/AIDS were increasing in the first three waves among all the population groups except FFW. In the fourth wave also there is a considerable increase in the knowledge among truckers and helpers from 91 to 96 percent. Among MFW it has increased from 94 to 95 percent. However, among commercial sex workers it continues to remain stationary at 96 percent. The gain in knowledge among truckers and helpers and

**Figure 8**

Knowledge that Condom prevent AIDS - Indicator 4

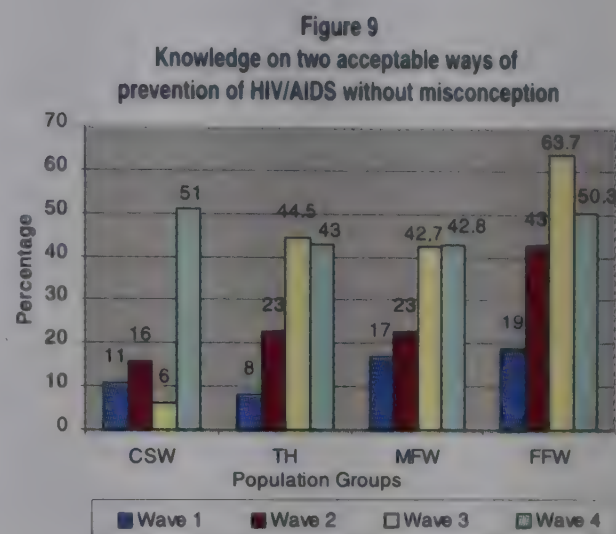


MFW is significant. The group discussions with FFW also revealed that their knowledge on condom preventing AIDS were low. Only a few of FFWs reported that they had known about condoms through the advertisement in Television. Majority of the FFW is in a lower age group, their mean age was 25 years. They also reported that they had not been exposed to any educational programme on

HIV/AIDS. (Fig 8: Table 6)

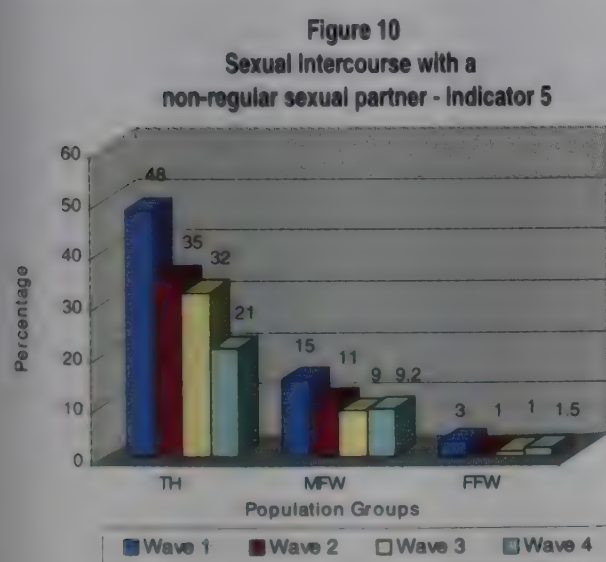
## Knowledge on two acceptable waves of prevention of HIV/AIDS without a misconception

The knowledge level of the respondents was assessed without misconceptions. It can be observed that there is a dramatic increase in knowledge without misconceptions among CSW. It has increased from 6 to 51 percent. Among truckers and male factory workers it continues to remain at the same level. However, among female factory workers it has decreased from 63.7 to 50.3 percent. (Fig 9)



## Behavioural Indicators

### Sexual Intercourse with a non-regular sex partner - Indicator 5



The main components of all the thematic interventions were prevention and control of STD, condom promotion and behavioural change. To change the high-risk sexual practices of the various population groups, which make them vulnerable to the infection, outreach work was emphasised. The outreach work focused on one to one interactions with the target of individuals educating them on prevention of AIDS.

The trends obtained on behavioural change capture the effect of the intervention efforts among various population groups. It is very encouraging for programme implementers to observe that the proportion of respondents who had sexual intercourse with



the non-regular partner is on decrease in the last 12 months. It has declined among truckers and helpers from 32 to 21 percent. However, the reported non-regular sexual behaviour among male factory workers continues to remain at the same level at 9 percent. This declining trend among truckers is found statistically significant. (Fig 10; Table 6). In the group discussion, the truckers and helpers who abstained from non-regular sexual behaviour made it known that the main reason for doing so was the threat of HIV/AIDS infection apart from the fear of highway dacoit activities. Some also said that they had changed their sexual behaviour having seen their friends dying of AIDS and the family of the deceased suffering. Many of the truckers lamented that now-a-days getting a marriage alliance was also difficult for them as people suspected the trucker's behaviour in general. In some cases, they even had to share their HIV blood test results with the bride's family. Many truckers also revealed that community looked down on their profession due to the high amount of spread of HIV/AIDS among them.

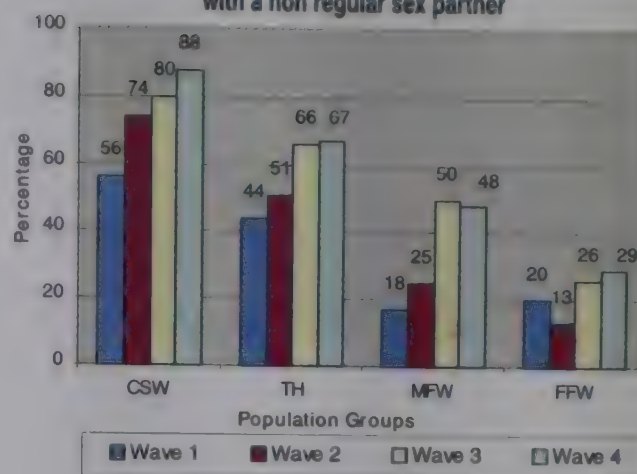
When truckers were probed about the alternative behaviour they would adopt when they felt like having sex, majority said that they masturbated. Few of them also told that they spent time with their friends to divert their thoughts away from sex. Few of them also seemed to resorting to alcohol.

### **Condom use during sexual intercourse with a non-regular sex partner - Indicator 6**

Among those involved in non-regular sexual behaviour, the proportion of respondents who reported using condoms in their last sexual intercourse have significantly increased among the group of CSW from 80 to 88 percent. There is only a marginal

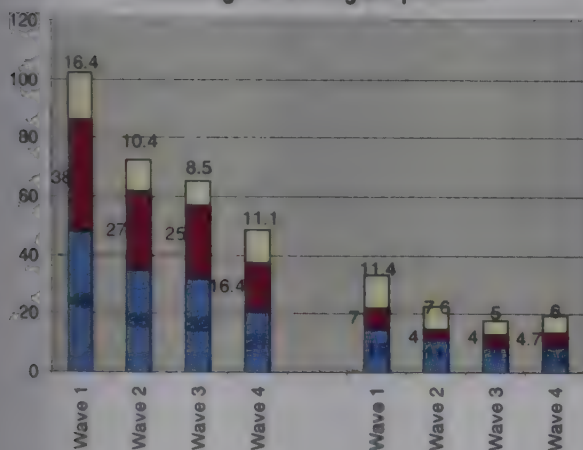
increase among truckers and helpers from 66 to 67 percent. However, among the group of male factory workers it has decreased from 50 to 48 percent. The increase in condom usage among commercial sex workers is statistically significant.

Figure 11  
Condom use during sexual intercourse  
with a non regular sex partner



## Sexual intercourse with the paid partner and condom usage

Figure 12  
Percentage of non-regular partners



The non-regular partners are classified into paid partners and casual partners. The paid partners are mainly the CSWs and the casual partners are neighbours, relatives, friends, co-workers etc. The proportion of respondents who reported sexual intercourse with paid partners have steadily decreased among the truckers and helpers - from 38 to 27 and 25 to 16.4 percent. However among the male factory workers while it was 4 percent in the third wave, it has increased to 4.7 percent in the fourth wave. It is important to note that the proportion of respondents involved in casual sex has increased in the fourth wave. Among truckers and helpers it has decreased from 16.4 to 10.4 and 8.5 to 11.1 percent among MFW 11.4 to 7.6 and 5 to 6 percent.

Further the average number of

Figure 12  
Average number of paid partners

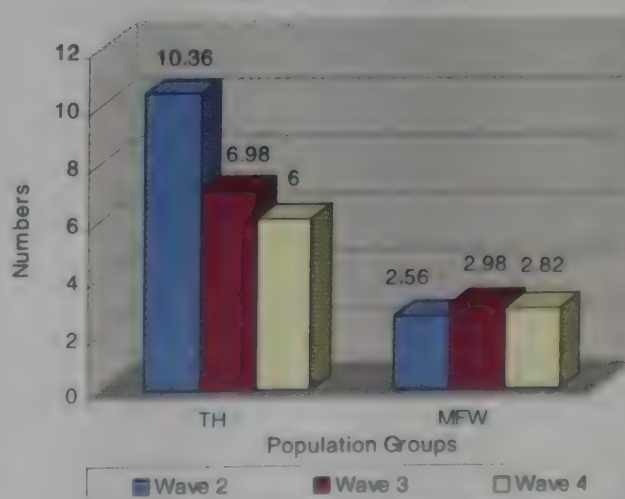
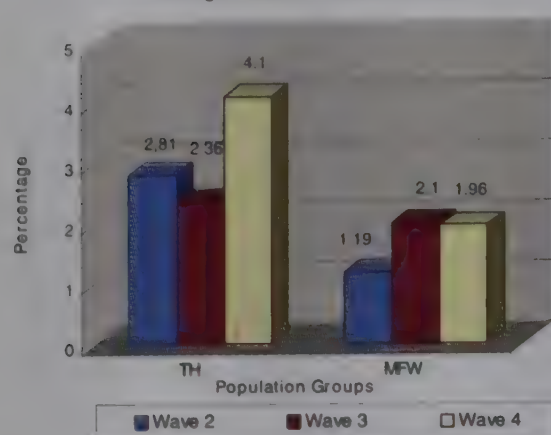




Figure 14  
Average number of casual partners



paid partners per year has decreased among the population group of truckers and helpers over a period of three years from 10.36 to 6.98 to 6 percent. Among the population group of male factory workers it is remaining more or less at the same level. It is interesting to observe that the number of casual partners among truckers has almost doubled. The increase in casual sex can be attributed mainly

to the population groups not perceiving casual partners with risk behaviour.

The proportion of respondents who use condom with paid partners have steadily increased among the group of TH - from 55 to 66 to 75 to 80 percent. However, among the group of MFW it has remained stationary in the last two waves, at 67 percent. In the group discussion the TH who have involved in non-regular sexual behaviour said that presently highway sex workers insist on them using condom and majority of them even put condoms on them. Some of the TH also expressed concern for the highway sex workers occupational hazard that they were facing the threat of infection.

Figure 13  
Condom usage with paid partners

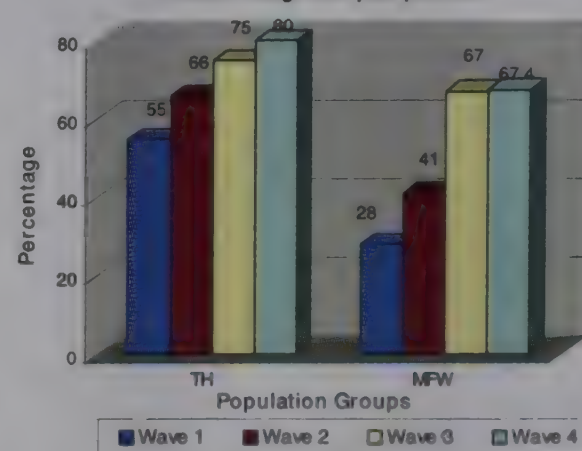
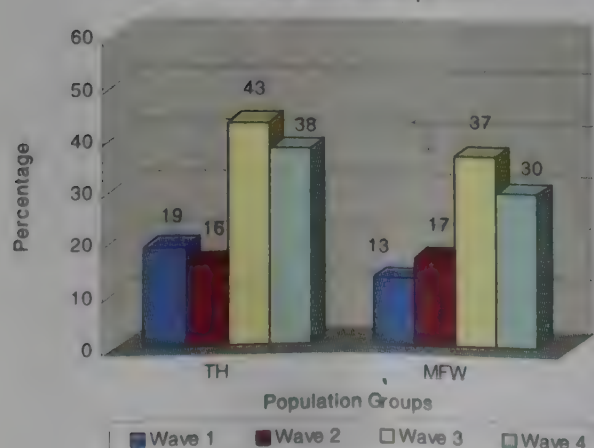


Figure 15  
Condom usage with casual partners



Condom usage with casual partners has decreased drastically among both the groups. Among TH 19 to 16 and 43 to 38 percent. Among MFW, it has recorded an increase - from 13 to 17 and subsequently a decrease from 37 to 30 percent. It is very clear that the population groups perceive the

casual partners to be free from disease. The casual partners are mostly the relatives and friends who live near the resting-places of TH. The TH have also expressed that casual partners are family women and they are clean.

### Average number of days engaged in Sex trade by a CSW in a month and number of clients per day

The average number of days in sex trade by a CSW in a month has increased in the fourth wave, from 14.4 to 14.6 and 15 to 20 days. The reason, which can be attributed to this, is that the number of sex workers operating full time has increased from 46.8 to 69 percent.

In the group discussion sex workers when asked about the number of days they are involving in sex trade expressed that two or three

clients are working for them the whole day and on some days as they don't make adequate money they have to work for many number of days.

Only sex workers who had a part time job said that only once in a way they solicited sex. The client encountered per day has also increased from 2 to 2.45. The full time sex workers said that since they are aware of a condom's protection from the disease they

are free from anxieties like getting STDs and HIV and also pregnancy.

Figure 16  
Average number of days in sex trade

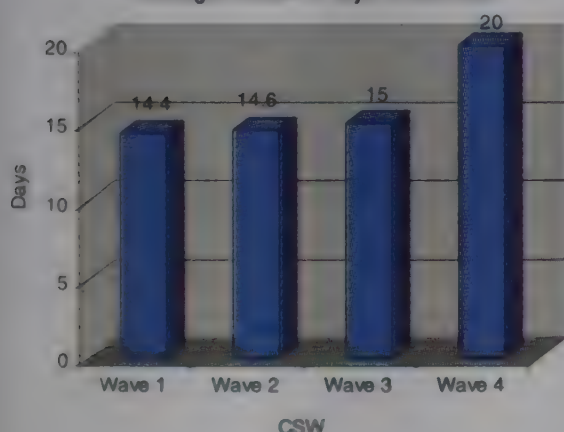
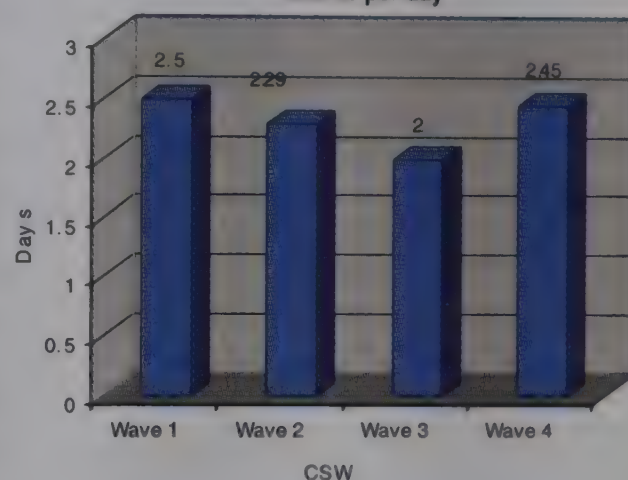


Figure 17  
Clients per day



### CSWs condom negotiation practice

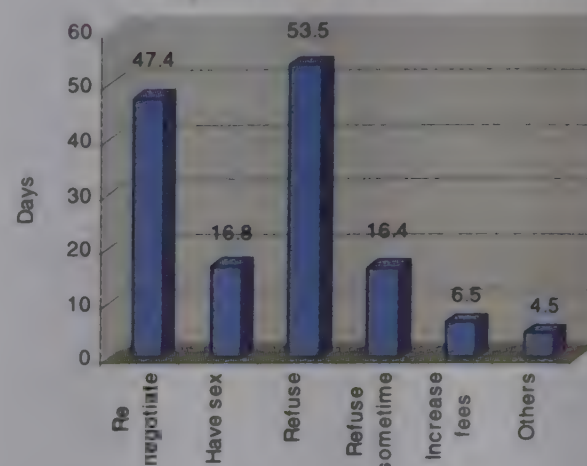
When CSWs were asked how they would manage the clients who refused to use condoms due to varied reasons after getting into the place of having sex, it is noticed that nearly half of the sex



workers at 47.4% re-negotiate for using condoms. The other half of 53.5 percent, refuse to have sex. Only 16.8 percent of them have sex without a condom.

When CSWs were asked whether they had the habit of putting on the condoms to their clients, it is interesting to note that 71.5 percent of them reported positively. In-group discussion the CSW said that at present it is compulsory to make the clients use condoms. Only those sex workers who are very desperately in need of money on the day will yield to unsafe sex. At times sex workers have gone to the extent of hitting the clients who refuse condom or escape from the place by motivating the clients to drink more or ejaculate before penetration by involving in oral sex. But sex workers report that only when they are subjected to group sex or paired sex forced on them they are powerless to use condoms.

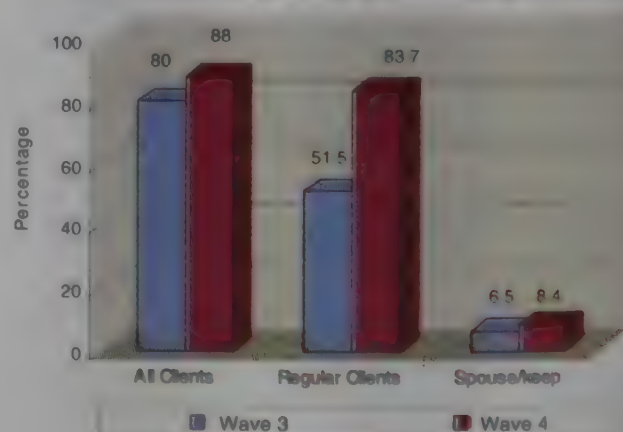
Figure 18  
Management of Clients who refuse condom



### CSWs condom usage among spouses/keep and regular clients

It has been observed in the fourth wave that there is a declining trend among the group of CSWs in offering services to regular clients. A decline from 68.7 to 47.1 percent is statistically significant. With regard to the condom usage among those who had regular clients it has drastically increased from 51.5 to 83.7 percent. The condom usage with a spouse/keep had a marginal increase, from 6.5 to 8.4 percent.

Figure 19  
CSWs condom usage among spouse/keep/regular clients



## Voluntary Condom Procurement by CSWs

The voluntary condom procurement habit of CSWs highlights the importance the individual has for the product to be used as a protective device. The voluntary condom procurement by CSWs had been increasing steadily across the four waves of BSS. In the fourth wave only a marginal increase had been observed from 19.2 to 20.5 percent. In the group discussion many of them told that they carried free condoms and also their clients bought the condom which had erotic pictures on the sachet.

Figure 20  
Voluntary condom procurement by CSWs

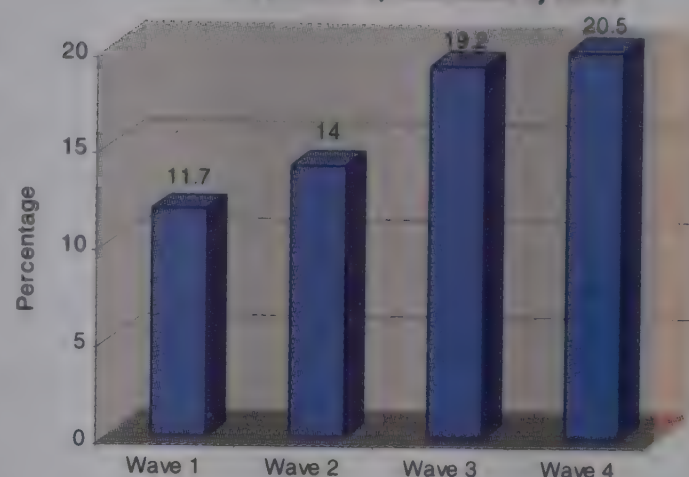
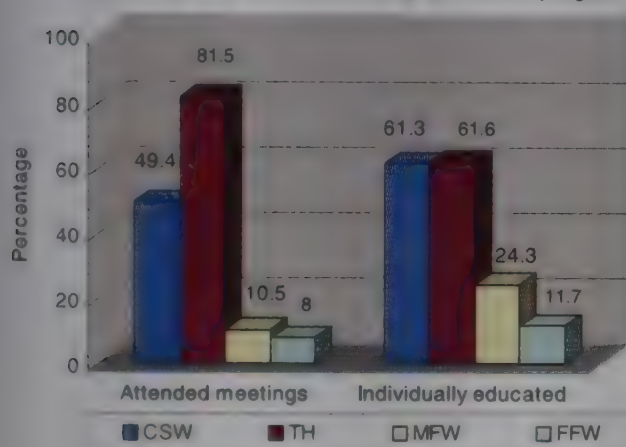


Figure 21

Respondents who are intervened by prevention program



## Respondents who attended an HIV/AIDS intervention programme

In the fourth wave the respondents were asked if they had opportunities to attend any meeting, where HIV/AIDS was a main theme, and also how many of them were contacted individually by social workers or others for imparting education on HIV/AIDS prevention methods. It was observed that nearly half of

the CSW - 49.4 percent - and 81.5 percent of the TH had attended meetings in which issues related to HIV/AIDS were the main theme. Among factory workers only 10.5 percent of MFW and 8 percent of FFW have attended meetings.

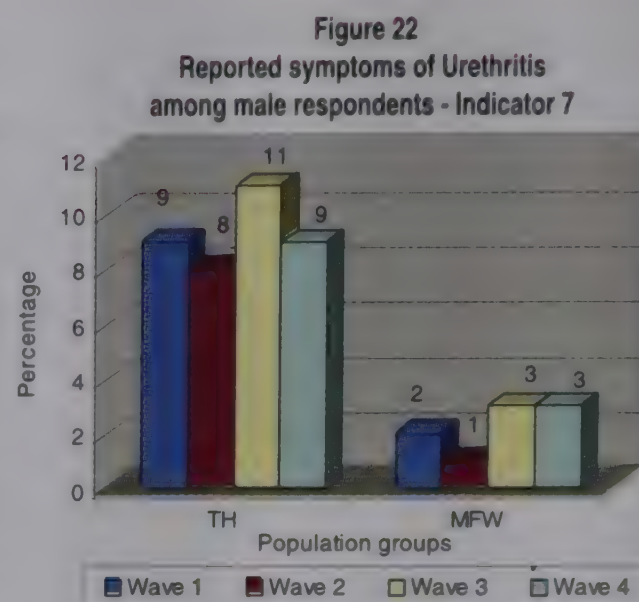
More than half of the CSW and TH have had the opportunity where social workers or health educators interacted with them educating them on HIV/AIDS. While among factory workers, 24.3 percent of the MFW and 11.7 percent of the FW had the opportunity.



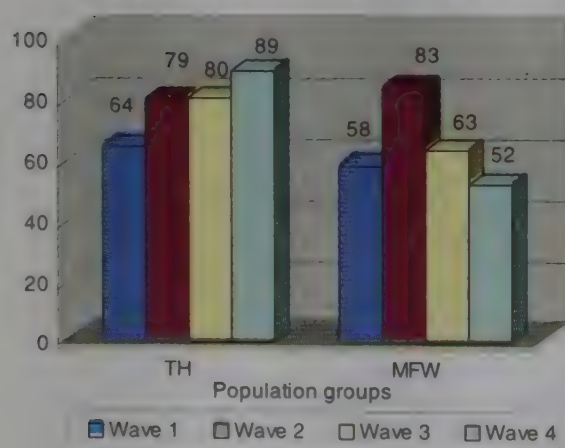
## Health seeking Behaviour

### Reported symptoms of Urethritis among male respondents - Indicator 7

The male respondents were asked whether they had experienced any symptoms of Urethritis such as pain or discharge in the penis during the last 12 months. The reported incidence of Urethritis among truckers has decreased from 11 to 9 percent. Among the group of MFW it has remained at the same level of 3 percent.



**Figure 23**  
Treatment sought for late incidence of Urethritis - Indicator 8



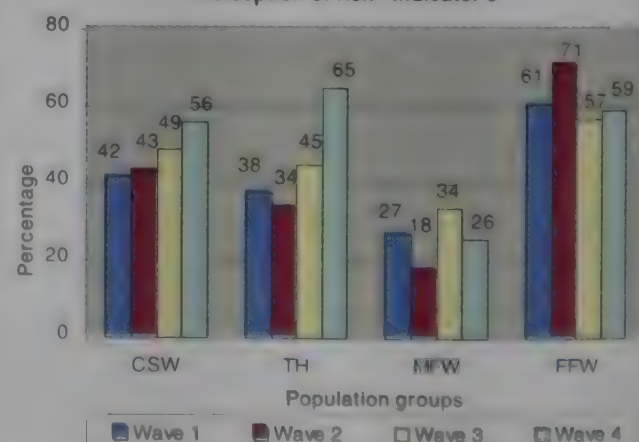
### Treatment seeking behaviour for Urethritis - Indicator 8

Male respondents who reported to have experienced symptoms of Urethritis were asked about where they sought treatment for the problem. The treatment seeking behaviour for Urethritis from qualified medical practitioners has increased among truckers from 80 to 89 percent. However, among the group of MFW it has decreased from 63 to 52 percent.

### Perception of risk - Indicator 9

The perception of risk of contracting the HIV infection was obtained from the respondents involved in unsafe sex. There is a significant increase in the perception of risk of contracting HIV/AIDS among CSWs and TH. Among the group of TH it has increased from 45 to 65 percent and

**Figure 24**  
Perception of risk - Indicator 9



among the group of CSW from 49 to 56 percent. However, among the group of MFW it has decreased from 34 to 26 percent.

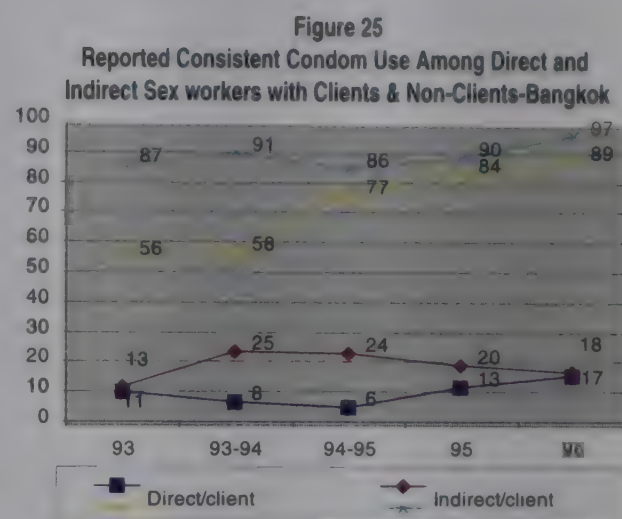
### Behavioural change captured by Tamil Nadu BSS and Bangkok, Thailand, Indonesia BSS.

The Behaviour Surveillance Survey done in Bangkok from 1993 to 1996 obtained data from various population groups. The findings show that direct < brothel based > and indirect <non-brothel based> sex workers reported condom usage increasing at different levels

depending on the type of sex partner. In Tamil Nadu also sex workers reported that condom usage was increasing depending on the type of clients, regular and non-regular. The regular clients are those who seek the service of the sex worker frequently and they know each other, and a kind of friendship existing among them.

In Bangkok direct sex workers reported high on consistent condom usage even in the baseline at 1993 which increased over the next 4 years. However among indirect sex workers the reported condom usage was very low and lot of intervention efforts went in for a considerable period of time focusing on behavioural change among them. Nevertheless, the condom usage remained low among the indirect sex workers

In Tamil Nadu the sex trade is non-brothel based. Therefore the practice of condom usage with regular client and non-regular client was obtained. The sex workers insisting on condom usage with their non-regular client was reported only by about half of them representing 56 percent in the baseline. This steadily





increased over a period of three years. In the fourth wave it has drastically increased from 80 to 88 percent. Reported condom usage with regular clients was obtained only in the last two waves. In the third wave it can be observed that only about half of them reported condom usage but in the fourth wave it has significantly increased to 83.7 from 51.5%

Figure 26  
Condom usage of Sex workers in Tamil Nadu

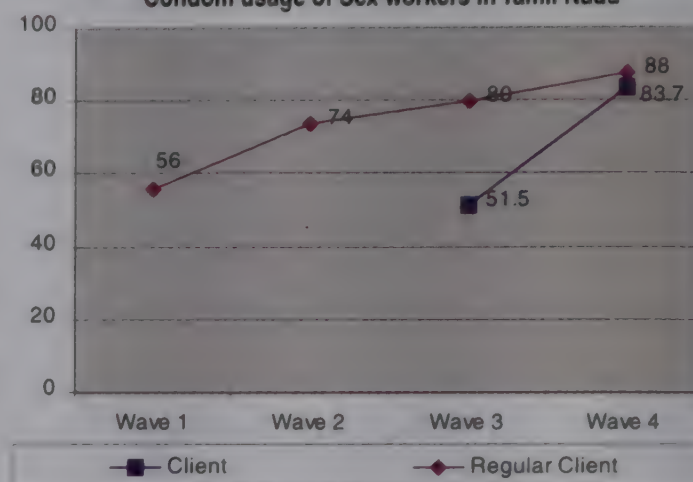
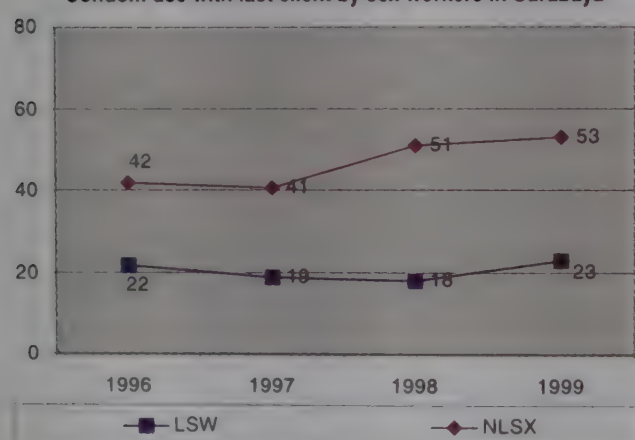


Figure 27  
Condom use with last client by sex workers in Surabaya



The trends captured by HIV Risk Behaviour Surveillance of Indonesia among the two population groups of commercial sex workers and seaport labourers truckers in Surabaya show that the trends of change in condom usage behaviour has not been encouraging for programme implementers. It can be observed that the condom usage of the sex workers operating in the local areas was increasing

consistently, but over a period of four years only 53 percent of them reported of using condom with their last client. However the condom usage among non-localised sex workers remained at the same level. Similarly among Surabaya seaport workers and truckers, the condom usage remained low all over the period of four years.

## Future interventions in the state

In the state of Tamil Nadu the major key players involved in intense intervention efforts in the area of STD/HIV/AIDS prevention and control was the AIDS Prevention And Control Project (APAC) administered by Voluntary Health Services

(VHS) with financial support from United States Agency for International Development (USAID), and the other player was the State AIDS Control Society. The intervention programmes of APAC were executed through the NGO partners, the private and public sectors. While the State AIDS Control Society played a major role through effective IEC campaign and set the climate for targeted interventions and also had its own interventions.

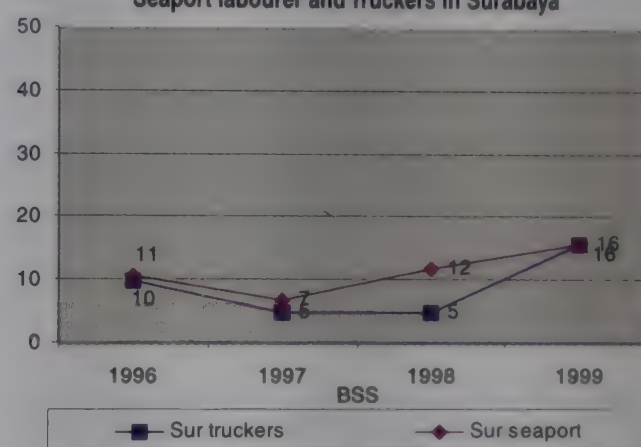
### HIV Risk Behaviour

Surveillance has proved as an effective tool to systematically monitor sexual behavioural changes. It has helped understand that indicators of success and identify the persistent problem areas. To be specific, it identifies specific high-risk behaviour that is to be changed. The behavioural data obtained serve as an early warning system for monitoring the STD/HIV/AIDS intervention programmes. It informs the direction and effectiveness of the programme design.

BSS has served as a potential tool for advocacy and the data generated are useful for the policy makers to decide on the programme strategies. It also enables cross state and country comparison in behavioural risk. Triangulating behavioural data with other surrogate measures like STD prevalence and HIV prevalence will help programme implementers understand their pattern of epidemic.

Tamil Nadu HIV Risk Behaviour Surveillance Survey has captured the effect of prevention intervention efforts in

Figure 28  
Condom use with last sex workers among  
Seaport labourer and Truckers in Surabaya





combating the spread of HIV/AIDS in the state. The data throw light on the sexual behavioural change which has happened among the population groups which are more vulnerable to infection viz., truckers & helpers and commercial sex workers. The various strategies adopted to address the population groups were prevention and control of STD, condom promotion and behavioural change with a specific stress on safe sex options. APAC funded NGO partners adopted peer promotion and one to one interaction method to educate the various target communities. The overall number of interaction with the population group kept increasing over years and the overall number of one to one interaction with the truckers from the year 1997 June to Dec 99 was 566212 and with CSWs from the period April 98 to Dec 99 was 46735. TNSACS adopted generic campaign apart from their intervention with various groups. The wide generic campaign of TNSACS in the year 1995 helped APAC to address the specific target groups. Effectively the knowledge level of all the target groups was high even before the targeted intervention. The synergy of efforts of the two key players APAC & TNSACS has been well captured by the BSS. It is very encouraging to note that 81 percent of the truckers have had the exposure to HIV/AIDS mass campaigns and 62 percent have been educated individually on prevention methods of the disease. The message, which they have received, is brought to practice. The reported involvement non-regular sex has steadily decreased among truckers and helpers from 48 to 35 to 32 to 21 percent in the last 4 years. Their involvement in paid sex has also steadily decreased from 38 to 27 to 25 to 16.4 percent. Among the truckers and helpers who still involve in non-regular sex the condom usage behaviour has steadily increased over the past four years from 44 to 51 to 66 to 67 percent. In paid sex also, the condom usage has again steadily increased from 55 to 66 to 75 to 80 percent.

Focus group discussions with truckers and helpers show how the preventing messages have reached them and increased their perception of contracting the infection if they involve in unsafe sex. In the past one year, risk perception has significantly increased from 45 percent to 65 percent. The main reason for perceiving the risk of infection as they state is because they have involved in unsafe sex. The BSS has also obtained messages which the future intervention can address on For example the message of prevention of the disease by using of condoms is brought to practice more in paid sex than in casual sex. Still, truckers perceive that casual partners are not at risk of infection and therefore condom usage with casual partners is not very encouraging. Taking all these facts into consideration, now the intervention programmes should focus on communicating that any multi-partner sexual Behaviour can cause HIV infection. Further, the death of their peers due to HIV/AIDS combined with the messages they receive from the intervention effort has gone a long way in changing their sexual practices.

Similarly among Commercial sex workers, where the knowledge level of using condom for preventing HIV/AIDS was very high in the baseline, still the condom usage Behaviour was low. But the intervention efforts have made them perceive the importance of condom as protective device. It is very amazing to note that condom usage among sex workers with their last client has steadily increased from 56 to 74 to 80 to 88 percent respectively in the last four years. The condom usage, which was observed low among their regular clients in the past, has increased significantly from 51.5 to 83,7 percent. More than half of the commercial sex workers said that they refused to have sex if their clients refused to use condom. Another 47 percent said that they renegotiated the condom usage in such cases. Truckers and helpers validated this statement of sex workers saying that even if they refused to use condom, sex



workers themselves made them wear on 71.5 percent of them reported that they themselves put on the condoms to their clients. Intervention efforts were made to make commercial sex workers to realise the importance of using condom and remaining free from STD/HIV/AIDS infection. Alcoholism, which was stated as the main reason for inconsistent usage of condom, was also addressed in the intervention messages. sex workers state that they have become very careful not to get drunk while on job. The message which has penetrated the population group sex workers that condom as the best method for preventing HIV/AIDS has made them feel the importance of the device and also made them confident, free from worries of various infections.

All these changes portray the efforts of intervention programmes among these population groups like truckers and sex workers. However, it is important to take notice of the declining knowledge levels of the prevention of the disease among female factory workers. Though their risk-behaviour is very less it is essential that they should be aware of the prevention methods of disease. Among male factory workers, the condom usage behaviour is not very encouraging and this needs attention in future intervention efforts in the state.

# SUMMARY AND CONCLUSION

## Main findings

### Knowledge

- The knowledge level of all the groups continues to remain high except among the group of FFW
- Knowledge without misconceptions has increased significantly among CSWs.

### Sexual Behavior

- Sexual intercourse with a non regular partner has decreased significantly among TH. Among the group of MFW it continues to remain at the same level.
- Sexual intercourse with a paid partner has decreased among the group of TH.
- Condom usage with non regular partner continues to remain at the same level among the group of TH and it has decreased among the group of MFW.
- Condom usage with a paid partner has increased among the group of TH.
- Condom usage with a regular client by CSW has increased.
- Half of the CSW re negotiate condom usage with their clients when they refuse to use them.
- The voluntary condom procurement of CSW has increased.

### Urethritis prevalence and treatment

- The reported symptom of urethritis has decreased among the group of TH.
- The treatment seeking behaviour from a qualified medical practitioner has increased among the group of TH.



## **Risk Perception**

- Among the CSW & TH respondents involved in unsafe sex, the perception of risk of contracting HIV/AIDS has increased while it has decreased among the group of MFW.

## **Conclusion**

- The knowledge level of the prevention of the disease continues to remain high.
- The knowledge level of the prevention of the disease among the group of FFW continues to remain low.
- The population groups of MFW & FFW have limited exposure to HIV/AIDS prevention activities.
- The trend of reduced involvement in non regular sexual behaviour among the group of TH is very encouraging.
- The considerable reduction in paid partners among the group of TH is also very encouraging.
- The trend across the condom usage behaviour of TH with their paid partners has increased.
- The reduced involvement in non regular sex and increased risk perception among those involved in unsafe sex shows that the intervention efforts are taking the right tract.
- The decrease in condom usage with a non regular partner, decrease in health seeking behaviour and risk perception among the group of MFW warrant need for intervention programmes.







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